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S/194/61/000/009/005/053
D209/D302

Applying semiconductor rectifiers...

stant component of magn. field ($H_0 = 0$), in the presence of constant component of magnetic field ($H_0 \neq 0$) is calculated and the value of value of the rectified current in the indicating winding is derived. It is shown that with $H_0 = 0$, the e.m.f. in the winding is

$$c = A(\mu_a - \mu_b) \frac{dH_{\sim}}{dt},$$

where $A = S \cdot n_2 \cdot 10^{-2}$; $\mu_a = \frac{dB_a}{dH_{\sim}}$; $\mu_b = \frac{dB_b}{dH_{\sim}}$.

The e.m.f. contains only odd harmonics. It is shown that with $H_0 \neq 0$ even harmonics appear in the e.m.f. \mathcal{L} , whose polarity is totally determined by that of the constant component of the field H_0 . An analytical expression for the e.m.f. is derived for this case. The shapes of curves of e.m.f. with $H_0 = 0$, $H_0 > 0$ and $H_0 < 0$ are given. An analysis of the operation of the phase-sensitive circuit is carried out, including calculation of the rms value of the current I

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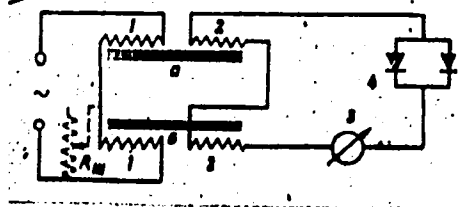
Applying semiconductor rectifiers...

in the indicating circuit which is measured by an electro-magnetic instrument 3 and is expressed as follows:

$$I = E_1 \left(\frac{1}{r_{b2} + r_o} - \frac{1}{r_{b1} + r_o} \right).$$

where r_{b1} and r_{b2} - differential resistances of the symmetrical non-linear resistance 4; r_o - resistance of the instrument 3. 3 fig-ures. [Abstracter's note: Complete translation]

Fig.



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2

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S/126 '60/010/003/004/009/XX
E192/E382

AUTHORS: Drozhzhina, V.I., Zatsepin, N.N., Ponomarev, Yu.F.,
Fridman, L.A., Shturkin, D.A. and Yanus, R.I.

TITLE: Theory of Ferroprobes with Longitudinal Symmetrical
Saturation Excitation

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol. 10,
No. 3, pp. 359 - 366

TEXT: Aschenbrenner and Goubau (Ref. 1) described in 1936
a new highly sensitive method of measuring the potential of
the magnetic field by means of nonlinear magnetic elements,
ferroprobes, and they used these for measuring the fluctuations
of the magnetic field of the Earth. The theory of such probes
was developed more thoroughly in subsequent work of German
and Soviet authors (Refs. 2-11), including the authors of this
paper, for the case of a uniform DC field. Mikhaylovskiy and
Spektor (Ref. 12) dealt with the operation of these probes
in a nonuniform field. Considerable progress has been made
in the techniques of applying them and as a result of this,
highly sensitive magnetometers with very fast response are
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E192/E382

Theory of Ferroprobes with Longitudinal Symmetrical Saturation
Excitation

available, for instance - for investigating the short-period variations of the magnetic field of the Earth, for searching for mineral deposits by means of aeromagnetic prospecting methods, etc. Furthermore, small-size instruments for measuring local values and gradients of highly nonuniform fields (magnetic flaw detectors for detecting invisible cracks in ferromagnetics), an automatic apparatus for various magnetic measurements, etc. have also been built. In spite of that, a large portion of the practically important problems has to be solved by means of inefficient purely empirical approach, since the theory of these probes is either insufficiently accurate or insufficiently general. In this paper the following problems are formulated and partly solved: 1) taking into consideration more accurately the field of magnetic charges of the core and the eddy-current field in it; 2) taking into consideration more accurately the possible nonuniformity of the

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Theory of Ferroprobes with Longitudinal Symmetrical Saturation
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measured field; 3) taking into consideration the influence of the deformation in the initial sections of the hysteresis loop caused by the effect of the measured field. The calculations are made on the basis of the following limitations and assumptions: a) the field to be measured is much smaller than the maxima of the excitation field; b) the influence of magnetic viscosity and after-effects is disregarded; c) the no-load condition is investigated.

It is assumed that the core of the ferro-element is in the form of a solid of revolution and that its axis is taken as the axis OX; a certain point O on this axis is taken as the origin of the coordinates. The distance between an arbitrary point and the axis revolution is denoted as r and the radius of the lateral surface of the core on its cross-section by a coordinate x is denoted as $r_0(x)$. The core carries an excitation winding supplied with a current i_b .

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Theory of Ferroprobes with Longitudinal Symmetrical Saturation
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which changes with time t between two limit values I_{sat} ,
the changes being monotonic and symmetrical, i.e.

$i_b(t) = -i_b(t + T/2)$, where T is the period of the
excitation current. The current produces an excitation
field $H_b(x, t)$. The portion of the core between $x = a$
and $x = b$ is surrounded by a search winding which has $n_u(x)$
turns per unit length; the output terminals of this winding
are connected to a very large resistance so that it can be
assumed that the current in this winding is very small
(open-circuit operation). The core is situated in the measured
field $H_n(x)$. The field of eddy currents induced in the
core is $H_\phi(r, x, t)$ and the field of magnetic charges in the
core is $H_\omega(x, t)$. The core is assumed to be so thin that
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E192, 382

Theory of Ferroprobes with Longitudinal Symmetrical Saturation
Excitation

the nonhomogeneities of the fields H_u , H_n and H_o in the transverse direction can be neglected. The vector of the magnetic induction is B and the total magnetic field is $H = H_o + H_n + H_u + H_o$. The electromotive force induced in the search winding is given by:

$$e = - 2\pi \int_a^b n_u dx \int_0^r \frac{dB}{dt} r dr \quad (1) .$$

From Eq. (1) it follows that:

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Theory of Ferroprobes with Longitudinal Symmetrical Saturation
Excitation

$$\epsilon = e - e^0 = -2\pi \int_a^b n_u dx \int_0^r \frac{d(B - B^0)}{dt} r dr \quad (2) .$$

Eq. (2) can be written in a different form by taking into account the following property of the magnetisation curves of ferromagnetics. It is known from experiments (Refs. 13, 14) that if H varies monotonically between two limiting values H_A and H_B , which fulfil the inequalities:

$$H_A < -H_K; \quad H_B > H_K \quad (3) .$$

the terminal portions of the ascending and descending branches of the magnetisation loop follow the branches of the limiting magnetisation loop; H_K in Eqs. (3) is a constant of the

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Theory of Ferropoles with Longitudinal Symmetrical Saturation
Excitation

material which is slightly higher than its coercive force. The situation is illustrated in Fig. 1. Consequently, the loops $B(H)$ can be uniquely determined by H_A and H_B . The magnetic inductance for the ascending and descending loops can be expressed by means of the Taylor series. If H_n is comparatively small, it is sufficient to consider only the first-order terms of these series. Consequently, the difference in the magnetic induction can be expressed by:

$$B - B^0 = \mu_n^0 (H_A - H_A^0) + \mu_0^0 (H - H^0) \quad (7)$$

where

$$\mu_0^0 = \left(\frac{\partial B^0}{\partial H^0} \right)_{H=H^0}$$

is the differential permeability

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Theory of Ferroprobes with Longitudinal Symmetrical Saturation
Excitation

at $H = H^0$ and $\mu_n^0 = \left(\frac{\partial B}{\partial H_A} \right)_{H=H^0}$.

It is now necessary to express the variables of Eq. (7) in terms of H_n . This problem can be solved accurately only for the case when H_0 and H_n are homogeneous over the whole volume of the core and the core is in the form of an ellipsoid whose thickness is so small that $H_\phi = 0$. In this case, Eq. (7) can be written as:

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Theory of Ferromagnetic Probes with Longitudinal Symmetrical Saturation
Excitation

$$B - B^0 = \frac{4\pi H_n [(4\pi - N)(\mu_0^0 - \mu_n^0) + \mu_0^0 \mu_{AK}^0 N]}{(4\pi - N + \mu_0^0 N)(4\pi - N + \mu_{AK}^0 N)} \quad (11)$$

where N is the demagnetisation coefficient of the core
and μ_{AK}^0 is defined by:

$$B_A - B_A^0 = \mu_{AK}^0 (H_A - H_A^0) \quad (10)$$

Eq. (2) can now be written as:

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E192/E382

Theory of Ferroprobes with Longitudinal Symmetrical Saturation
Excitation

$$\epsilon = AH_n f(t); \quad A = 4\pi^2 \int_a^b n_u(x) r_o^2(x) dx \quad (12) .$$

In the general case it is necessary to consider three additional equations apart from Eq. (7). These equations (including Eq. 7) are linear and homogeneous with respect to all the unknowns and the parameters H_n . It follows, therefore, that in those cases when the fields H_n are geometrically similar, i.e. if they can be defined by:

$$H_n = K_n h_n(x) \quad (16)$$

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Theory of Ferroprobes with Longitudinal Symmetrical Saturation
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where K_n is a coefficient independent of x , $\varepsilon(t)$ will
be of the same form and the scales of measurement will be
determined by K_n . In those cases when not only the scale
but also the form of $\varepsilon(t)$ is varying, the quantitative
comparison of various $H_n(x)$ can be determined from $\varepsilon(t)$
only under certain limiting conditions.

There are 2 figures and 17 references: 13 Soviet and
4 non-Soviet.

ASSOCIATION: Institut fiziki metallov AN SSSR
(Institute of Physics of Metals of the AS, USSR)

Card 11/12

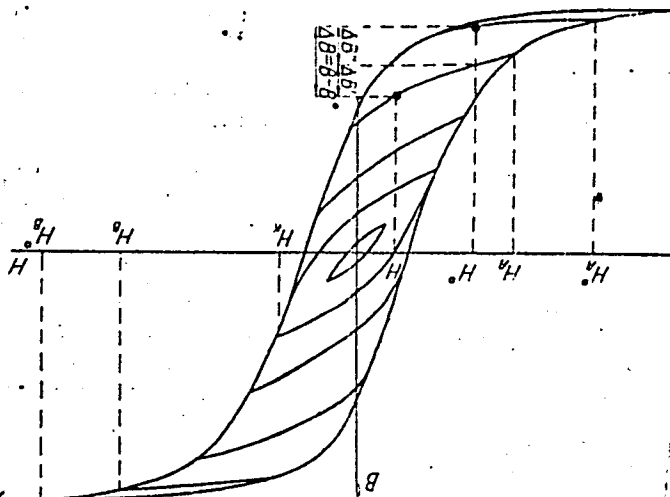
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E192/E382

Theory of Ferroprobes with Longitudinal Symmetrical Saturation Excitation

Phc. 1.



Card 12/12

SUBMITTED: June 12, 1960

21802

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9.6000 (1040, 1089, 1067)

S/103/61/022/004/009/014
B116/B212

AUTHORS: Kadochnikov, A. I., Eridman, L. A., Yanus, R. I. (Sverdlovsk)

TITLE: Theory of the selective rectification of even numbered potential harmonics by using symmetrical non-linear electric resistors

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 4, 1961, 501-508

TEXT: In the present paper one of the circuits (Fig. 2) for selective rectification of even numbered potential harmonics is investigated. This is built with symmetrical non-linear resistors. The application of this circuit is shown in the output circuit of a ferro-probe (or a magnetic amplifier of a type with even numbered harmonics). In order to rate the sensitivity of such a ferro-probe a simple formula has been derived. Experimental data are brought that confirm the theoretical conclusions. A discontinuity near a certain point on the static characteristic of the symmetric non-linear resistors will have an essential influence on the sensitivity of this circuit. A circuit of symmetrical non-linear resistors which has been brought by R. Ya. Berkman (Ref. 9: "Fazovyy detektor na kratnyye Card 1/4

21802

S/103/61/022/004/009/014
B116/B212

Theory of ...

chastoty." (Phase discriminator for multiple frequencies). Avtomatika i telemekhanika, v. 19, no. 4, 1958) is very advantageous in this respect. But his formula can only be applied to some special cases. This paper brings a sufficiently accurate and also simple solution for that circuit, its correctness has been proved by trial. It is shown that the constant component of the current flowing through the load resistance R_B will be proportional to the mean value of the sum of the even numbered harmonics which belong to the potential measured in the band width τ . The circuit investigated may also be used to rectify the even numbered harmonics of the emf generated in the output coil of the ferro-probe (or of a magnetic amplifier of the type with even numbered harmonics). The constant current component, which has been described above, is essentially a function of the load resistance R_B and the resistance R_G where the blocking potential originates. The sensitivity of the ferro-probe may be approximately calculated with the formula

$$\frac{I}{H_0} \approx - \frac{nS\mu_d \cdot \max f}{\sqrt[3]{R_B^2 (R_G + R_{G1})}} \quad (25);$$

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Theory of ...

and the approximate calculation of the current gain for a magnetic amplifier having an equivalent output circuit may be done with

$$\frac{I}{I_0} \approx - \frac{\frac{S}{l} n n_0 \mu_{d,max} f}{\sqrt{R_E^2 (\bar{R}_G + R_{\sigma 1})}} \quad (26),$$

where $R_{\sigma 1}$ and $R_{\sigma 2}$ denote the load resistances; $R_{\sigma 1}$ contains half of the ohmic resistance of coil II; \bar{R}_G represents a certain mean value of the resistance of the rectifier component; μ_d denotes the differential permeability of the core; n the number of turns of the indicator coil; S the area of the core cross section; f the exciting frequency; I the control current; n_0 the number of turns of the control coil; l the length of the magnetic path of the core; H_0 the "control" field. There are 7 figures, 1 table, and 9 references: 7 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: Miles I. G. Types of Magnetic Amplifiers Survey. Trans. AIEE, vol. 71, 1952; Frost-Smith E. H. The Study

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Theory of ...

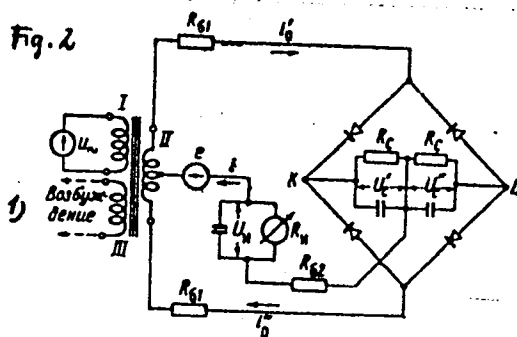
S/103/61/022/004/009/014
B116/B212

of a Magnetic Inverter for Amplification of Low - Input - Power D. C.
Signals. IEE, vol. 100, no. 76, Part II, 1953.

SUBMITTED: June 24, 1960

Legend to Fig. 2:
1) Excitation.

Fig. 2



Card 4/4

FRIDMAN, L.A.; FRANTSEVICH, V.M.; MOCHALOVA, G.L.

Metal probe magnetometer with self-adjustment by a magnetic amplifier.
Fiz. met. i metalloved. 16 no.6:921-923 D '63. (MIRA 17:2)

1. Institut fiziki metallov AN SSSR.

TABACHNIK, V.P.; FRIDMAN, L.A.

Maximum dynamic differential permeability of highly permeable alloys.
Fiz. met. i metalloved. 17 no.2:217-222 F '64. (MIRA 17:2)

1. Institut fiziki metallov AN SSSR.

Fridman, L. A.
Category: USSR/Analytical Chemistry - Analysis of inorganic substances.

G-2

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 31039

Author : Menkina M. M., Fridman L. A., Ganchel' L.E.

Inst : not given

Title : New Procedure for the Analysis of Nickel Baths

Orig Pub: Sb. Mashinostroitel' Belorussii, No 1 (2). Minsk, 1956, 115-116

Abstract: Description of a method for the determination of boric acid in nickel electrolyte baths by titration with a solution of NaOH, to phenol-phthalein, in the presence of mannite. Ni is first removed by precipitation as hydroxide, by means of NaOH.

Card : 1/1

-58-

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 6, p 259 (USSR) SOV/137-57-6-11199

AUTHORS: Menkina, M.M., Fridman, L.A.

TITLE: Photocolorimetric Determination of Copper in Aluminum Alloys
(Fotokolorimetricheskoye opredeleniye medi v alyuminiyevykh splavakh)

PERIODICAL: V sb.: Mashinostroitel' Belorussii. Nr 1 (2). Minsk, 1956, pp 119-120

ABSTRACT: 0.4 g of the specimen are placed into a 200 cc volumetric flask, 15 cc of 1:1 HCl are added, and after one minute 3 cc of HNO₃. The whole is boiled to a complete dissolution of the specimen. 100 cc H₂O and 40 cc NH₄OH are added, and the solution is diluted up to the mark. The first portion of the filtrate is discarded, the second is investigated on an FEK-M photoelectric colorimeter with a red light filter in a 20-cc cell. The calibration curve is drawn with the aid of specimens of Al alloys with known Cu contents.

K.K.

Card 1/1

FEDORCHIKO, N.P.; SHCHUKIN, Ya.P.; FRIDMAN, L.A.

Production and use of glycerin in the U.S.A. Biul. tekhn.-ekon.
inform. no.8:94-96 '58. (MIRA 11:10)
(United States--Glycerol)

FEDORENKO, N.P.; FRIDMAN, L.A.; SHCHUKIN, Ye.P.

Production and uses of aromatic hydrocarbons in the U.S.A.
N.P.Fedorenko, L.A.Fridman, E.P.Shchukin. Khim. prom. no. 7:604-
612 Q-N '60. (MIRA 13:12)
(Unites States--Hydrocarbons)

FEDORENKO, N.P.; FRIDMAN, L.A.; SHUMSKAYA, N.N.; SHCHUKIN, Ye.P.

Certain problems related to the economics of the phenol pro-
duction. Khim.prom. no.3:163-166 Mr '61. (MIRA 14:3)
(Phenols)

S/064/60/000/03/04/022
B010/BC08

AUTHORS: Fedorenko, N. P., Shchukin, Ye. P., Fridman, L. A.

TITLE: On the Economy of Acetone¹ Production

PERIODICAL: Khimicheskaya promyshlennost', 1960, No. 3, pp. 202-204

TEXT: The further development of acetone production with respect to its most favorable economic aspects is discussed. An increase of acetone production by 4.5 times in the period from 1959 to 1965 is provided in the new Seven-year Plan, and the cumene¹ method is to be used mainly. It is pointed out in connection therewith that the problem of the simultaneous production of phenol is of special importance. A comparison of the production of acetone and phenol by various methods (Table 1) shows that the cumene method is the most suitable one. This may also be seen from an explanation of the calculations of the production cost which is still inaccurate. Corresponding applications of acetone must be provided for, since a large increase in the production of phenol by the cumene method is also provided for, and the applications of acetone are becoming more and more numerous. Acetic anhydride can be produced by pyrolysis from

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On the Economy of Acetone Production

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B010/B008

acetone and acetic acid. Although this method is not the most suitable one economically (Table 2), it is to be preferred to the other methods for various reasons. A treble use of acetone as a solvent in the production of cellulose ester¹ is provided for 1965. Acetone is also increasingly applied in the synthetic materials industry. Calculations showed that, provided the increased demand for phenol in 1965, 1970, and 1975 be covered with the help of the cumene method, the consumption of the quantities of acetone produced is safeguarded. The production increase of phenol and acetone by the cumene method exclusively, planned for 1975, is thus completely justified. There are 2 tables.

Card 2/2

GOROKHOVSKIY, Ya.Yu. [Horokhovs'kiy, IA. IU.]; RITSLIN, V.A. [Rytelin, V.A.]; FRIDMAN, L.A.

Automatic device for flaying and piling of hides. Lab. prom.
no.2s60-61 Ap-Je'64 (MIRA 17s7)

FEDORENKO, N.P.; BRAGINSKIY, O.B.; FRIDMAN, L.A.; SHCHUKIN, Ye.P.

Economic effectiveness of the pyrolysis of low-octane gasolines.
Khim. prom. no.5:339-344 My '64. (MIRA 17:9)

FRIDMAN, L. G. Cand. Tech. Sci.

Dissertation: "Comparative Investigation of the Bottoms of Thin-Walled Vessels."
Moscow Inst of Chemical Machine Building, 27 Mar 47.

SO: Vechernyaya Moskva, Mar, 1947 (Project #17836)

FRIDMAN, L.G.

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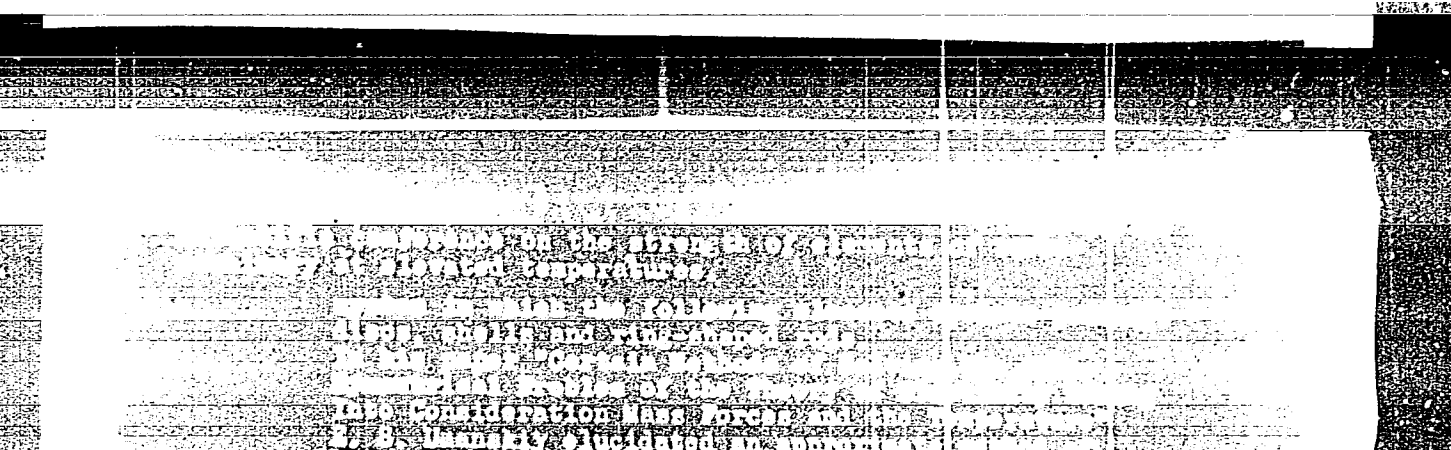
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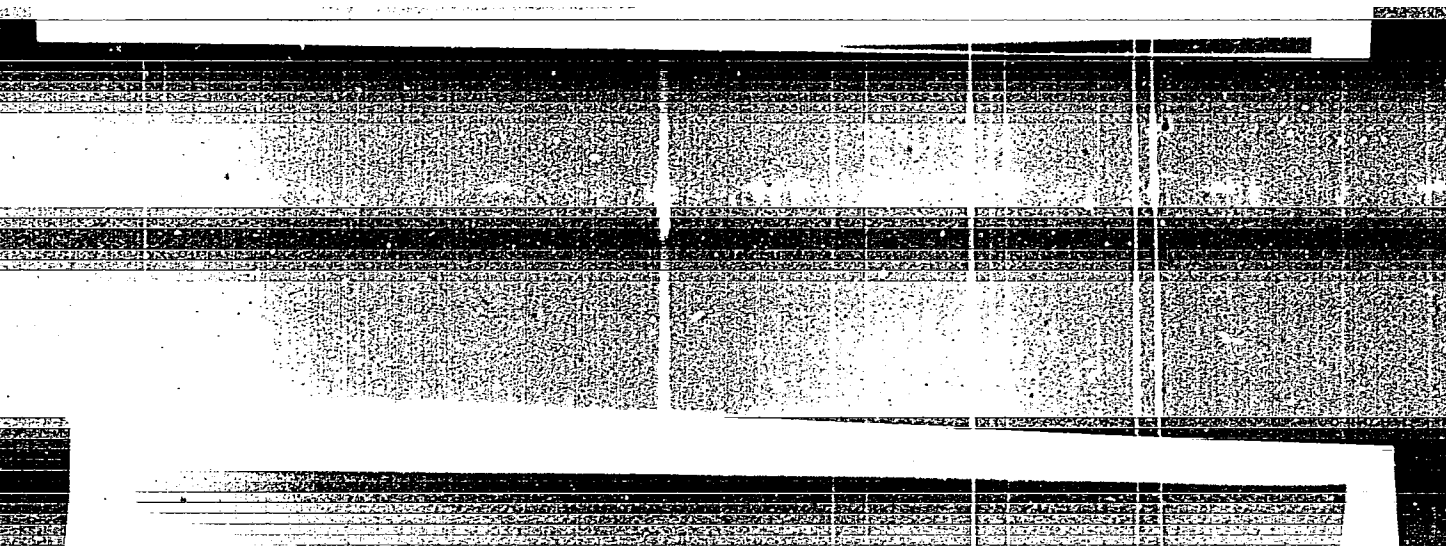
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of Testing High Temperature Metallurgical Materials and
the paper of V. Z. Tseytlin, M. A. Piliavsky, A. V. Ryabchenko,
and A. I. Maksimov (TAKHIMMASH) "Long Duration and Static
Strength in Air and in Gaseous Media of Aircraft Engines
Used for Transportation (Gas) Turbine Engines".
devoted to the study of high temperature materials.
and results of natural investigations of elements of
turbo-machinery were dealt with in papers presented in
the personnel of TAKHIMMASH.
A. K. Kalinovsky (VNI) dealt with the results of
investigation of the growing cracks and the
tension strength of specimens of gas turbine
nozzles and a complicated concentration of
conditions similar to the operating conditions. The
author described the features of the heating equipment
of the damping equipment which ensures the possibility
of long duration tests of natural discs of gas turbine
at a high temperature until destruction occurs. The author
considered the deformations of a disc in the operating

on the strength of elements of
at elevated temperatures.

duration description, the character of the
of the projections provided for testing
the character is described of the material
before and after fracture. In his paper
Testing of Turbine Blades and Materials
at Elevated Temperatures" L. I. Papchenko
with the method developed by TAKU for testing
oscillations permitting creation of loads
magnitudes and frequencies at the natural
frequencies, giving some of the results of

[illegible]

ACC NR: AR6030400

(N)

SOURCE CODE: UR/0124/66/000/006/V013/V013

AUTHOR: Fridman, L. I.

TITLE: Temperature stresses in the casing of a ring-shaped combustion chamber

SOURCE: Ref. zh. Mekhanika, Abs. 6V95

REF SOURCE: Tr. Kuybyshevsk. aviats. in-t, vyp. 19, 1965, 299-306

TOPIC TAGS: thermoelasticity, shell theory

TRANSLATION: General equations of thermoelasticity are introduced for a thin-walled circular cylinder heated nonuniformly in a circular direction and in the direction of the axis of the shell. An approximate method is given for a temperature field which changes only along the generating element, to determine heat stresses and displacements without considering boundary effects. The problem of thermoelastic stresses is studied in a casing of a ring-shaped combustion chamber, the temperature field of which is given in the form

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Here α , β are dimensionless coordinates of the points of the mean surface; t_0 , k , n are parameters which depend on the structural characteristics of the chamber. A com-

ACC NR: AR6030400

parative calculation is made for a combustion chamber under various boundary conditions on the shell. It is shown that rigid sealing of the ends of the chamber leads to a considerable increase in temperature stresses. L. A. Shapovalov.

SUB CODE: 20, 13

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FRIDMAN, L. I.

20

PHASE I BOOK EXPLOITATION

SOV/6086

Nauchnoye soveshchaniye po teplovym napryazheniyam v elementakh turbomashin.
2d, Kiyev, 1961.

Teplovyye napryazheniya v elementakh turbomashin; doklady nauchnogo soveshchaniya, vyp. 2 (Thermal Stresses in Turbomachine Parts; Reports of the Scientific Conference, no. 2). Kiyev, Izd-vo AN UkrSSR, 1962. 174 p. 1800 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Institut mekhaniki.

Resp. Ed.: A. D. Kovalenko, Academician, Academy of Sciences UkrSSR; Ed.: T. K. Remennik; Tech. Ed.: A. M. Lisovets.

PURPOSE: This collection of articles is intended for scientific workers and turbine designers.

Card 1/6

Thermal Stresses (Cont.)

SOV/6086

COVERAGE: The book contains 18 articles dealing with investigations connected with thermal stresses in turbine components. Individual articles discuss thermoelasticity, thermoplasticity, thermal conductivity, and temperature fields. No personalities are mentioned. References accompany 17 articles. The conference recommended broadening the theoretical and experimental investigations of aerothermoelastic and aerothermoplastic problems, the development of investigations of general problems of the theory of thermoelasticity and thermoplasticity based on the thermodynamic principles of reversible and nonreversible processes, the development of effective calculation methods for thermal stresses taking into account plastic deformations and creep in thin- and thick-walled structural members under stationary and nonstationary operating conditions, the development of experimental-research methods for thermometry and tensiometry in connection with modern operational conditions of mechanical structures, and the broadening of investigations of problems in the thermostrength of structures, especially of those operating under conditions of frequent and sharp temperature changes.

Card 2/6

Thermal Stresses (Cont.)

SOV/6086

- Savchenko, V. I. [Kiyev]. Investigation of Thermal Stresses in Turbine-Machine Components by the Photoelasticity Method 106
- Dinerman, A. P. [Moscow]. On the Mechanism of the Effect of Accelerated Regimes of Turbine Startups on the Efficiency of Turbine Disks 117
- Gokhfel'd, D. A. [Chelyabinsk]. Some Results of the Experimental Investigations of Adaptability to Thermal Influences 133
- Vasil'chenko, G. S. [Moscow]. Effect of the Radial Temperature Gradient on the State of Stress of Turbine Disks Operating Under Creep Conditions 141
- (Fridman, L. I. [Kuybyshev]. On the Problem of Investigating Repeated Heating and Cooling 149
- Ulitko, A. F. [Kiyev]. Stationary Problem in Thermal Conductivity for a Cone 156

Card 5/6

FRIDMAN, L.I.

~~A case of severe luminal poisoning~~ cured by exchange transfusion. Sov. zdrav. Kir. no. 4/5:118-119 JI-O'63 (MIRA 17:1)

1. Iz khirurgicheskogo otdeleniya (zav. - K.S.Kovaleva) zheleznodorozhnoy bol'nitsy (nachal'nik A.M.Borisov).

BERG, P.P., doktor tekhn.nauk; BIDULYA, P.N., doktor tekhn.nauk; GRECHIN, V.P., kand.tekhn.nauk; DOVGAL'EVSKIY, Ya.M., kand.tekhn.nauk; ZHUKOV, A.A., inzh.; ZINOV'YEV, N.V., inzh.; KRYLOV, V.I., inzh.; KUDRYAVTSEV, I.V., doktor tekhn.nauk; LANDA, A.F., doktor tekhn.nauk; LEVI, L.I., kand.tekhn.nauk; MALAKHOVSKIY, G.V., inzh.; MIL'MAN, B.S., kand.tekhn.nauk; SOBOLEV, B.F., kand.tekhn.nauk [deceased]; SKOMOROKHOV, S.A., kand.tekhn.nauk; STEPIN, P.I., kand.tekhn.nauk; USHAKOV, A.D., kand.tekhn.nauk; FRIDMAN, L.M., inzh.; KHRAPKOVSKIY, E.Ya., inzh.; TSYPIN, I.O., kand.tekhn.nauk; SHKOL'NIKOV, E.M., kand.tekhn.nauk; POGODIN-ALEKSEYEV, G.I., prof., doktor tekhn.nauk, red.; BOLKHOVITINOV, N.F., prof., doktor tekhn.nauk, red.toma; LANDA, A.F., prof., doktor tekhn.nauk, red.toma; RYBAKOVA, V.I., inzh., red.izd-va; SOKOLOVA, T.F., tekhn.red.

[Handbook on materials used in the machinery industry] Spravochnik po mashinostroitel'nyim materialam; v chetyrekh tomakh. Pod red. G.I.Pogodina-Alekseeva. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. Vol.3. [Cast iron] Chugun. Red.toma N.F.Bolkhovitov i A.F.Landa. 1959. 359 p. (Machinery industry) (Cast iron) (MIRA 13:1)

FRIDMAN, L.M.

Significance of siderocytosis and sideroblastosis in the synthesis
of hemoglobin in anemic states; survey of the literature. Probl.
gemat. i perel. krovi 5 no. 5:12-17 My '60. (MIRA 14:1)
(ANEMIA) (HEMOSIDERIN)

SEMENSKAYA, Ye.M.; FRIDMAN, I.M.

Karler-Rustitaki's disease. Trudy Inst. ekol. i klin. khir.
i gemat. AN Gruz. SSR 11:155-162 '63. (MIR '198)

L 23308-65 EWT(d)/TDB(jj)/BXT/EED-2/EWP(1) Po-4/Pq-4/Pg-4/Pk-4 IJP(c)
ACCESSION NR: AR5002281 BB/GG S/0044/64/000/010/V022/V022

SOURCE: Ref. zh. Matematika, Abs. 10V154

AUTHOR: Fridman, L. M. B

TITLE: Teaching algorithms of recognition

CITED SOURCE: Izv. Akad. ped. nauk RSFSR, vyp. 129, 1963, 125-132

TOPIC TAGS: teaching algorithm, recognition algorithm, programmed instruction, recognition algorithm type, coefficient of complexity
160

TRANSLATION: One of the important elements of programmed instruction are the so-called algorithms of recognition whose mastering is one of the problems of teaching. The author distinguishes two types of recognition algorithms, determining and classifying. By means of the first, the article under inspection is determined as belonging to a certain set; classifying algorithms afford the possibility of determining that the given article belongs to one of the many possible species of these articles. The algorithms of recognition of logically determined articles
Card 1/2

L 23308-65

ACCESSION NR: AR5002281

are discussed, in particular the case where the species-specific signs are related or unrelated to each other. For an estimate of the algorithm steps and subsequently the algorithm as a whole, a coefficient of complexity is introduced. Its value is determined experimentally or selected on the basis of finite considerations. G. Maslova

SUB CODE: DP

ENCL: 00

Card 2/2

FRIDMAN, L.M. (Krasnoyarsk)
~~XXXXXXXXXXXXXXXXXXXX~~

Requirements for solving geometrical problems by computation.
Mat. v shkole no.4:7-19 J1-Ag '55. (MLRA 8:9)
(Geometry--Problems, exercises, etc.)

FRIDMAN, L.M. (Krasnoyarsk)

K.D.Ushinskii on teaching arithmetic. Mat.v shkole no.1:
12-14 Ja-F '56. (MLRA 9:4)
(Arithmetic--Study and teaching)

PHILIP, L. .

PHILIP, L. K.: "The osmotic and mechanical resistance of erythrocytes in various states." Georgian State Publishing House for Medical Literature. Tbilisi State Medical Inst. Tbilisi, 1951.
(Dissertation for the degree of Candidate in Medical Science.)

SO: 'Knishnaya Letopis', No 36, 1956, Moscow.

FRIDMAN, L.M. (Tula).

Some results and imminent problems. Mat.v shkole no.1:18-23 Ja-F '57.
(Mathematics--Periodicals) (MLRA 10:2)

FRIDMAN, L.M. (Tula).

Vladimir Afanas'evich Sirotinin; obituary. Mat. v shkole no.3:93-
94 My-Je '57. (MLRA 10:6)
(Sirotinin, Vladimir Afanas'evich, 1891-1956)

FRIDMAN, L.M. (Tula)

Problems. Mat. v shkole no. 4:91-94 J1-Ag '58.
(Mathematics--Problems, exercises, etc)

(MIRA 11:7)

FRIDMAN, L.M.

COUNTRY	: USSR	T
CATEGORY	: Human and Animal Physiology, Blood	
ABST. JOUR.	: <i>NEFROL., No. 5 1955, No. 21970</i>	
AUTHOR	: <i>Fridman, L.M.</i>	
INST.	: <i>Academy of Sciences of the Georgian SSR *</i>	
TITLE	: <i>Osmotic and Mechanical Resistance of Erythrocytes in Anemic States.</i>	
ORIG. PUB.	: <i>Sakartvelos SSR Metsniyerebata (Akademiis moambe, 1957, 19, No. 2, 225--230 (Scabstch. AN GruzSSR)</i>	
ABSTRACT	: <i>The investigations were performed upon 1646 healthy subjects, 134 patients with anemia and 16 dogs. Osmotic and mechanical resistance in peripheral blood and marrow punctures were studied. The maximal and minimal limits of normal resistance were determined by investigating healthy subjects of both sexes and of various ages. In the majority of cases of hyperchromic anemia (40 patients), an increase in osmotic resistance and a diminution in mechanical resistance were detected. Similar changes were observed in hypochromic anemia (76 patients), but they were less marked. In addition</i>	
Cond:	<i>1/4</i>	
	<i>* Inst. Exptl. & CLINICAL SURGERY & Hematology</i>	

COUNTRY : USSR

CATEGORY :

T

ABS. JOUR. : VZhBiol., No. 5 1959, No. 21970

AUTHOR :

INST. :

TITLE :

ORIG. PUB. :

ABSTRACT : the osmotic resistance of the erythrocytes of the bone marrow is grater than that of the erythrocytes of the peripheral blood. Post hemorrhagic anemia was produced in dogs by bleeding large quantities. Peripheral nerve stimulation was performed in some of the animals by a Speransky operation. The observed deviations in osmotic fragility and form of the erythrocytes were supported by clinical observations. During the development of experimental posthemorrhagic anemia, there occurs a simultaneous flattening of the shape of the erythrocytes. There is a

Card:

3/3

COUNTRY : USSR

CATEGORY :

ABS. JOUR. : RzhBiol., No. 5 1959, No. 21970

AUTHOR :

INST. :

TITLE :

ORIG. PUB. :

ABSTRACT : fixed relationship between the changes in resistance and in the shape of the erythrocytes.--E.R.Paley

Card:

4/4

T-41

FRIDMAN, Lyubov' Moiseyevna, prof.; YANKOSHVILI, TS.A., red.izd.-va;
BOKERIYA, E.N., tekhn. red.

[Osmotic and mechanical resistance of erythrocytes in
anemic states] Osmoticheskaya i mekhanicheskaya rezi-
stentnost' eritrotsitov pri anemicheskikh sostoyaniyakh.
Tbilisi, Izd-vo AN Gruz.SSR, 1963. 166 p. (MIRA 17:1)

*

L 11509-66 EWT(m)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b) LJP(c) MJA/JD/IM
ACC NR: AP6003283 (N) SOURCE CODE: UR/0135/66/000/001/0018/0019 42

AUTHOR: Nikonov, I. P. (Candidate of technical sciences); Fridman, L. N. (Engineer) Khovanets, V. K. (Engineer) B

ORG: Ural Polytechnic Institute im. S. M. Kirov (Ural'skiy politekhnicheskiy institut)

TITLE: Consumable-electrode three-phase arc welding of AMts aluminum alloy plate 76

SOURCE: Svarochnoye proizvodstvo, no. 1, 1966, 18-19

TOPIC TAGS: arc welding, aluminum alloy, welding electrode, power welding equipment, fabricated structural metal/ AMts aluminum alloy

ABSTRACT: The results of an investigation of this method of welding 25-30 mm thick plate of AMts aluminum alloy at the Ural Polytechnic Institute are presented. A modernized UPI-UZTM-3 three-phase arc welding installation was used for the experiments; it was fitted with a special electrode holder including a clamp for keeping the electrode in a properly centered position (Fig. 1), and a low-voltage three-phase transformer as the power source. Specifications: electrode diameter 2 mm; welding current 350-500 a; arc voltage 30-37 v, electrode feed rate 380-440 m/hr; welding rate 8-12 m/hr; flux thickness 13-14 mm. The electrode was also made of AMts aluminum alloy (1.3% Mn, 0.37% Fe, 0.232% Si). Mechanical tests showed that the stress-rupture

Card 1/3

UDC: 621.791.75:669.715

2

I 14509-66

ACC NR: AP6003283

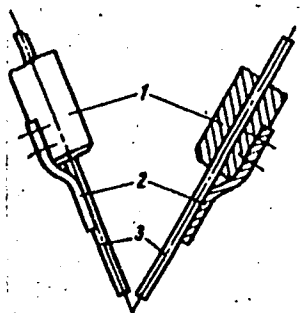


Fig. 1. Design of electrode holder:

1 - holder; 2 - clamp; 3 - electrode wire

Card 2/3

ACC NR: AP6003283

strength of the weld metal in the direction perpendicular to the weld axis is greater than the strength of the metal of the near-weld zone. Compared with single-phase submerged arc welding and nonconsumable-electrode three-phase arc welding, this new method of aluminum welding displays the following advantages: a) the use of AC makes it possible to markedly increase the efficiency of the welding installation (to 0.9 compared with an efficiency of 0.3-0.6 for DC); b) the welding of plate 25 mm thick and thicker is accomplished in a single operation, thus greatly accelerating the welding rate; c) the use of an automatic current regulator makes it possible to rapidly adjust the welding head to the specified current regime without altering the current in the electrodes; d) special operations to pickle the base metal and electrode are not required. Orig. art. has: 3 figures, 3 tables.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 373

NIKONOV, I.P.; FRIDMAN, L.N.; GEYNRIKHS DORF, N.G.

Some indices of three-phase welding of aluminum and its
alloys by consumable electrode and with flux. Avtom. svar.
18 no.8:51-53 Ag '65. (MIRA 18:11)

1. Ural'skiy politekhnicheskii institut imeni Kircva.

L 65085-65 EWT(m)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) IJP(c) JD/HM/HW
 ACCESSION NR: AP5021225 UR/0125/65/000/008/0051/0053
 621.791.016:546.621 41
 378

AUTHOR: Nikonov, I.P. (Engineer); Fridman, L.N. (Engineer); Geynrikhsdorf, N.G.
 (Engineer) 44,55 44,55

TITLE: Certain indicators of the three-phase consumable-electrode arc welding of
 aluminum and its alloys 18

SOURCE: Avtomaticheskaya svarka, no. 8, 1965, 51-53
 07,4655

TOPIC TAGS: consumable electrode arc welding, three-phase arc welding, arc welding,
 single phase arc welding, fusion welding, build-up factor, aluminum alloy, power
 requirement

ABSTRACT: In three-phase arc welding, welding productivity is characterized by the
 amount of metal welded per time unit. The three-phase arc welding of aluminum and
 its alloys by means of a consumable electrode is characterized by the following
 technical and economic indicators: the build-up factor K_b , the fusion depth factor
 K_f , the overall productivity of the build-up and fusion processes P_{ov} , the percent-
 age of loss and spatter, the unit power consumption per kg of built-up metal K_e ,
 per kg of weld $K_{e.w}$, and per meter of weld $K_{e.m}$. In three-phase welding with elec-

Card 1/2

L 65085-65

ACCESSION NR: APS021225

4

trode wire of 2-3 mm diameter $K_f = 10.65-12.0$ g/a-hr compared with $K_f = 8-9.4$ g/a-hr for single phase welding with electrodes of the same diameter. Thus, in three-phase welding K_f is generally 30% higher than in single-phase welding. The power requirement of three-phase welding is much smaller than that of single-phase welding, owing to the use of alternating three-phase current instead of direct current. Similarly, in three-phase welding of 25 mm thick sheets the welding rate is 24 kg/hr against 18 kg/hr for single-phase welding, and the build-up factor in three-phase welding is 8 g/a-hr against 6 g/a-hr for single-phase welding. In short, this comparison of two methods of consumable-electrode arc welding confirms the technical and economic advantages of three-phase welding over single-phase welding. Orig. art. has: 4 figures, 1 table, 4 formulas.

ASSOCIATION: Ural'skiy politekhnicheskii institut im. S. Kirova (Ural Polytechnic Institute) 44,55

SUBMITTED: 27Mar65

ENCL: 00

SUB CODE: IE, MM

NO REF SOV: 003

OTHER: 000

Card 2/2
MFR

FRIEDMAN, L.P.

2(0)

PHASE I BOOK EXPLANATION 307/2536

Abdumajid, and Kazakhbay SSR. Institut yadroznoy fiziki
 Tsey/Laboratoriya metallorodnykh i fiziki metallorodnykh, tom 2 (Transactions
 of the Institute of Nuclear Physics, Kazakh S.S.R. Academy of Sciences
 Laboratory for Metallurgical Science and Physics of Metals, Vol. 2)
 Alma-Ata, Izd-vo AN Kazakhbay SSR, 1959. 185 p. 1,000 copies printed.
 M.; F. Ya. Gendel'man; Tech. Ed.: P.P. Alferov; Editorial Board: I.O.
 Orlov, L.I. Durova, I.O. Durova, D.K. Kalpov (Resp. Ed.),
 S.I. Kalina, A.A. Prisyabov, and Zh. S. Tikhonov.
 PURPOSE: This is a collection of articles intended for research scientists,
 factory laboratory personnel, engineers, technicians, and also students and
 aspirants in metallurgy and physics of metals.

CONTENTS: The collection contains research reports which investigate the depend-
 ency of alloy properties on their chemical and phase states in a wide range of
 temperatures down to melting point and set forth much factual material on
 aluminum, copper, nickel, and other alloys. Theoretical ideas on plasticity
 and superplasticity, which are described as new, and hypotheses on reasons for
 the lowered plasticity of solid solutions are propounded on the basis of experi-
 mental data. No personalities are mentioned. References are given at the
 end of each article.

Prisyabov, A.A., and A.V. Korikov. Study of the Mechanical Properties of Alloys With Zinc, Phosphorus, Lead, and Nickel Additives	81
1. Study of the microhardness of brasses bronzes with phosphorus, zinc, lead, and nickel	81
2. Change in plasticity and strength of alloys during static loading	86
3. The aging of 80-20 and 80-40-20 brasses	99
Prisyabov, A.A., and D.K. Kalpov. Plasticity of Some Copper- Nickel and Nickel Alloys During Dynamic Loading	78
Prisyabov, A.A., and M.J. Sabharwal. Investigation of Some Zinc Base Alloys	78
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1. Fine crystal structure and properties of alloys of the Cu-Ni system	85
2. Fine crystal structure and the properties of single brasses	89
Prisyabov, A.A. Reasons for the Decrease in Plasticity of Solid Solutions	95
Prisyabov, A.A. The Relationship of Plasticity to Microstructure and Phase Composition in Alloys	101
Korikov, I.I., and K.T. Chernomura. Mechanical Properties of Al-Sn Alloys in the Liquid-Solid (Semi-Liquid) State	109
Korikov, I.I., and K.T. Chernomura. The Influence of Iron, Silicon and Manganese Additives on the Hot Shortness and Mechanical Properties of Al-Cu Alloys Near the Solidus Point	112
Korikov, A.V., and M.L. Zepin. The Temperature Coefficient of Electrically Resistant Magnesium Alloys	119
Zepin, M.L. One Method of Preparing Electron Microscope Specimens	124
Prisyabov, A.A., V.V. Rykova, and Yu.P. Gerasimov. Determination of Mass Specific Pressure During the Hot Rolling of Alloys and Spineliferous Metals	129
Prisyabov, A.A. On the Peculiarities of "Plastic Friction"	139
Prisyabov, A.A., and M.J. Sabharwal. The Structure of Zinc Base Alloys	146
Korikov, A.V., M.L. Zepin, and L.P. Friedman. The Practice of Liquidation Phenomena in Light of Some New Data	151
Prisyabov, A.A. The Structural Nature of the Inclusions of Free Elements During the Spectral Analysis of Silicon Steels	155

PRESNYAKOV, A.A.; CHERVYAKOVA, V.V.; NOVIKOV, A.V.; FRIDMAN, L.P.

Optimum procedure for the hot working of LS59-1 brass. TSvet.
met. 35 no.8:82-83 Ag '62. (MFA 15:8)
(Brass) (Rolling (Metalwork))

NOVIKOV, A.V.; CHERVYAKOVA, V.V.; FRIDMAN, L.P.

Effect of complex additives on the usefulness of LS59-1 brass.

Trudy Inst. met. i obog. AN Kazakh. SSR 7:101-104 '63.

(MIRA 17:6)

DUYSEMALIYEV, U.K.; NOVIKOV, A.V.; GIERVIZAKOVA, V.V.; FRIDMAN, L.P.

Increasing the technical and economic indices in the rolling of
LS99-1 brass with complex additives in industrial conditions.
Trudy Inst. met. i obog. AN Kazakh. SSR 7:105-111 '63.

(MIRA 17:6)

LEVKOVSKIY, Aleksey Ivanovich; D'YAKOV, A.M., otv.red.; TUZMUKHAMEDOV, R.A.,
red.; FRIDMAN, L.Sh., red.; YAZLOVSKAYA, E.Sh., tekhn. red.

[Characteristics of the development of capitalism in India]
Osobennosti razvitiia kapitalizma v Indii. Moskva, Izd-vo
vostochnoi lit-ry, 1963. 587 p. (MIRA 16:6)
(India--Economic conditions)

LEVKOVSKIY, Aleksey Ivanovich; D'YAKOV, A.M., otv. red.;
TUZMUKHAMEDOV, R.A., red.; FRIDMAN, L.Sh., red.;
YAZLOVSKAYA, E.Sh., tekhn. red.

[Characteristics of the development of capitalism in India]
Osobennosti razvitiia kapitalizma v Indii. Moskva, Izd-vo
vostochnoi lit-ry, 1963. 588 p. (MIRA 16:4)
(India--Capitalism)

TALYZIN, Fedor Fedorovich; DIZAKOV, A.M., etc. red.; FRIDMAN, L.Sh.,
red.

[Through India and Ceylon] Po India i Tsallena. Moskva,
Nauka, 1964. 130 p. (MIRA 19:1)

SAVILEYEV, Nikolay Alekseyevich; PIRALOV, V.V., ed. 1964.
FRUITS, L.S. ed. 1964.

[Small-scale industry in India] Markov profizvodka v Indii.
Moskva, Nauka, 1964. 136 p. (1964: 1964)

GOGOLIDZE, A.S.; OGNEV, G.I.; FRIDMAN, L.Yu.; BUYDENKO, P.A.; LESNYKH,
V.A.; TARARYKO, P.M.; YURILIN, G.M.

Making 541 m. of crosscuts in one month. Ugol' 40 no.12:
17-19 D '65. (MIRA 18:12)

1. Shakhta im. XXII s"yezda KPSS tresta Kadiyevugol' (for
Gogolidze, Ognev, Fridman). 2. Trest Kadiyevugol' (for
Buydenko). 3. Kadiyevskiy filial Kazakhskogo gorno-metallurgi-
cheskogo instituta (for Lesnykh, Tararyko, Yurilin).

SAKADA, Ya.N.; MUKHIN, N.S.; KAPLAN, N.L.; FRIDMAN, M.

Some proposals for improvement in dental prosthesis technics. Stomatologia 38 no.5:78 S-O '59. (MIRA 13:3)

1. Zaveduyushchiy subprotezhnoy laboratoriyey Moskovskogo meditsinskogo stomatologicheskogo instituta.
(DENTAL PROSTHESIS)

FRIDMAN, M.

~~FRIDMAN, M.~~

Use of contact terminals for drilling rig installations. Energ.biol.
no.5:13-16 My '54. (MLRA 7:5)
(Electric cables)

FRIDMAN, M.

reorganizing the cutting shop. Leg.prom. 14 no.8:57 Ag '54.
(Shoe industry) (MIRA 7:8)

GORBATOV, A., inzhener; SEVELIROV, P., inzhener; FRIDMAN, M., inzhener.

Mechanism for hoisting boxes. Mas.ind.SSSR 26 no.6:53 '55.
(Hoisting machinery) (MLBA 9:2)

FRIDMAN, M., inzh.

Light cantilever crane. Stroitel' no.7:11 J1 '58.
(Cranes, derricks, etc.)

(MIRA 11:9)

SHVETSOV, A., inzh.; FRIDMAN, M., inzh.; ARYASOV, I., inzh.; CHEBOTARZHIKO, B.

Brief news. Stroitel' no.7:31 JI '60.
(Construction industry)

(MIRA 13:8)

FRIDMAN, M.

Practice of using centralized payments in the "Murmanrybatroi"
Trust. Fin. SSSR 21 no.11:74-75 N '60. (MIRA 13:11)

1. Zamestitel' nachal'nika planovo-finansovogo otdela tresta
"Murmanrybatroy."

(Clearinghouse)

(Murmansk--Construction industry--Finance)

YEVSEYEV, P.; FRIDMAN, M.

From worker to senior foreman. Metallurg 7 no.5:34-35 My '62.
(MIRA 15:5)

1. Chleny obshchestvennoy redkollegii mnogotirazhnoy gazety zavoda imeni Petrovskogo "Tribuna metallurga".
(Rolling (Metalwork))

KARAULOV, Aleksey Nikolayevich; FRIDMAN, Moisey Aleksandrovich; ZOLOTOV,
S.S., otv.red.; ALEKSEYEVA, M.H., red.; DVORAKOVSKAYA, A.A.,
tekhn.red.; KONTOROVICH, A.I., tekhn.red.

[Shipbuilding drawing] Sudostroitel'noe cherchenie. Leningrad,
Gos.soiuznoe izd-vo sudostroit.promyshl., 1958. 120 p.
(MIRA 13:4)

(Shipbuilding)

(Mechanical drawing)

FRIDMAN, I. M. --

"Semiconductor from Frothgate." Sand Fizika-Mat. Sci.,
Leningrad State Geological Inst, Leningrad, 1954. (Indist.,
Oct 54)

Survey of Scientific and Technical Dissertations Received at
USSR Higher Educational Institutions (19)

SC: Sci. No. 411, 5 May 55

FRIDMAN, M.A.

Semicommutative multiplications. Dokl. AN SSSR. 109 no.4:710-712
Ag 1956. (MIRA 9:10)

1. Glazovskiy-gosudarstvennyy pedagogicheskiy institut imeni V.O.
Korolenko. Predstavleno akademikom V.I.Smirnovym.
(Groups, Theory of)

FRIDMAN, M. A.

Fridman, M. A. On semi-commutative multiplications.

Dokl. Akad. Nauk SSSR, 1979, vol. 250, no. 7, 10-12. (Russian)

The author considers T -products of groups. The following products for groups that are T -products in the following manner. Let G be a group of groups G_i indexed with respect to a set I . Let T be a set of relations $T = \{t_{ij} \mid i, j \in I\}$ between the groups G_i and G_j in G . Then the T -product of G is called a semi-commutative T -product of groups G_i and G_j in G .

groups A and B in G are T -products of A_i and B_i such that $g_i t_{ij} h_i = g_i h_i$ for all $g_i, h_i \in G_i$. A group G is called a semi-commutative T -product of groups G_i and G_j in G if G is a T -product of G_i and G_j in G .

$G = (A, B)$ for the set of relations $T = \{t_{ij} \mid i, j \in I\}$, where $V(A_i)$ is the set of all relations between elements of A_i and $V(B_i)$ is the set of all relations between elements of B_i .

Several theorems are stated concerning the structure of T -products of groups. The structure of T -products of groups is described with respect to the T -product. Numerous demonstrations of T -products are indicated.

16(1)

AUTHOR:

Fridman, V.A.

SOV/42-14-3-14/22

TITLE:

On a Question on Completely Regular Operations on a Class of Groups

PERIODICAL:

Uspekhi matematicheskikh nauk, 1959, Vol 14, Nr 3,
pp 181 - 183 (USSR)

ABSTRACT:

Let Δ be an arbitrary completely regular operation and $\prod_{\alpha \in \Sigma} \Delta A_\alpha$ the result of this operation for the groups $A_\alpha (\alpha \in \Sigma)$. A.I. Mal'tsev posed the question: Does there exist a Δ (different from the formation of direct or free products of groups), so that for every subgroup A'_α of A_α the subgroup $\{A'_\alpha\}_{\alpha \in \Sigma}$ of the group $\prod_{\alpha \in \Sigma} \Delta A_\alpha$ is decomposed into a given completely regular product of the subgroups A'_α ? (see O.N. Golovin [Ref 4]). In the present paper the author shows that among all infinitely associative, semicommutative multiplications on the class of all groups the direct and free formation of products are the only multiplications with the property mentioned above.

Caru 1/2

On a Question on Completely Regular Operations
on a Class of Groups

SOV/42-14-3-14/22

A.G. Kurosh and Ye.S. Lyapin are mentioned in the paper.
The author proves 1 theorem and 1 lemma in the notations
of [Ref 7].

There are 10 references, 8 of which are Soviet, 1 English,
and 1 American.

SUBMITTED: April 8, 1957

Card 2/2

FRIDMAN, M.B.

The 1A290P-6 semiautomatic six-spindle lathe. Biul.tekh.-ekon.inform.-
Gos.nauch.-issl.inst.nauch. i tekhn.inform. no.7:32-34 '62.
(MIRA 15:7)

(Lathes)

FRIDMAN, H.I.

Foreign body of the male urethra and urinary bladder. Khirurgiya,
Moskva 34 no.11:125-127 N '58. (MIRA 12:1)

1. Iz 1-y khirurgicheskoy klinika (zav. - prof. S.V. Lobachev) In-
stituta skoroy pomoshchi im. N.V. Sklifosovskogo (dir. - zaslushennyy
vrach USSR M.M. Tarasov, glavnyy khirurg - prof. B.A. Petrov)

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wire thread, in male (Rus))

(BLADDER, for. body
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(Coke ovens)

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N/5
755.214
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